AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claims 1-17 (cancelled)

18. (new) Process for controlling the supply of high pressure (HP) gasoline of a set of injectors connected to a common high pressure chamber, called a "common rail" (C) in a direct fuel injection circuit, called DFI, by a high pressure pump (P), by acting on the low pressure (LP) supply of said pump (P) by means of a slide electrovalve (E), controlled by the computer managing the operation of the motor, said electrovalve (E) comprising an internal leakage from the upstream low pressure, arriving at the electrovalve (E), toward the downstream low pressure, toward the pump (P), characterized by the fact that there is provided in said electrovalve (E) a high pressure (HP) leakage of ethylene, located in the common rail (C), toward the upstream low pressure.

19. (new) Process according to claim 18, consisting in connecting the chamber (64) of the electrovalve (E), receiving the upstream low pressure, to the common rail (C) by means serving as a non-return valve of calibrated passage; so that under certain conditions of operation of the motor, the gasoline located at low pressure in the common rail can be returned to the low pressure upstream inlet.

20. (new) Device for practicing the process according to claim 19, of the type comprising: a low pressure gas supplied by a pump (B) acting in a reservoir (R); a high pressure pump (P) supplying a common rail (C) and an electrovalve (E) regulating

the supply of low pressure gasoline to said pump (P), said electrovalve (E) being an electrovalve (40) with a valve (43), this latter sliding in a skirt (42) so as to cause the inlet of the upstream low pressure (23) to communicate with the downstream low pressure conduit (22a) supplying the pump (P) by means of a throat (46) provided in the drawer (43), a leakage flow being arranged between the upstream low pressure (23) and the downstream low pressure (22a) by means of play between the skirt (42) and the drawer (43), characterized by the fact that the drawer (43) is moved by a motor (45) against the force of a spring (44), this latter being disposed in a deformable cage (60/61), disposed in a chamber (64) into which opens the inlet channel (43) of the upstream low pressure, the upper portion (60) of this cage closing (or opening) an orifice (62), of the chamber (64), connected by a channel (63) to the common rail (C), this closure means being moreover provided with calibrated openings (65); such that, as a function of the demand on the motor, a communication can be established between the reservoir (R) and the common rail (C) by the channels (23 and 63) through the opening (62) and/or the calibrated passage (65).

21. (new) Device according to claim 20, in which the opening (62) comprises a seat (65) against which rests the movable portion (60) of the deformable cage (60/61); said seat (65) being traversed by one or several calibrated conduits so as to ensure through said seat (65) a calibrated permanent leakage.

22. (new) Device according to claim 20, in which the drawer (43) of the electrovalve (E) is traversed by a piercing (48).

23. (new) Device according to claim 21, in which in normal operation of the motor, the low pressure gasoline provided by the low pressure pump (B) passes through the electrovalve by passing through the throat (46), which is more or less opened by the

movement of the drawer (43) moved by the motor (45) against the spring (44) which applies the portion (60) of the cage against the opening (62).

24. (new) Device according to claim 20, in which when the motor is stopped, the residual high pressure prevailing in the common rail (C) flows toward the reservoir (R) through the calibrated passages (65), the chamber (64) and the channel (23).

25. (new) Device according to claim 20, in which when the motor acts as a motor brake, the injectors are closed, but the pump (P) is still driven and pumping the leakage flow from the upstream low pressure to the downstream low pressure, the high pressure increases in the common rail and presses back the cage (60) by opening the opening (62) so as to be returned to the reservoir (R).

26. (new) Device according to claim 20, in which when the motor turns idly, the excess of high pressure gasoline provided by the pump (P) is returned to the reservoir (R) through the channel (63), the opening (62) and the channel (23).

27. (new) Device according to claim 20, comprising for the control, of the LP supply of the pump (P): an electrovalve (40) whose drawer (43-100) is actuated by a motor (45-101); the LP arriving at the electrovalve through a channel (23-102) opening into a chamber (64-103) in which is located a spring (44-107) acting against the drawer (43-101) and being directed to the pump (P) by a channel (23a-105), the internal leakage of the upstream LP toward the downstream LP producing between the chamber (64-103) and the common rail (C) taking place through a one-way valve (60/61-110) controlled by the movements of the drawer (43-108) with the addition of a calibrated leakage flow and permitting communication between the upstream HP and LP, either through said

one-way valve (60/61) or beside this latter through a calibrated passage (113).

28. (new) Device according to claim 21, comprising for the control, of the LP supply of the pump (P): an electrovalve (40) whose drawer (43-100) is actuated by a motor (45-101); the LP arriving at the electrovalve through a channel (23-102) opening into a chamber (64-103) in which is located a spring (44-107) acting against the drawer (43-101) and being directed to the pump (P) by a channel (23a-105), the internal leakage of the upstream LP toward the downstream LP producing between the chamber (64-103) and the common rail (C) taking place through a one-way valve (60/61-110) controlled by the movements of the drawer (43-108) with the addition of a calibrated leakage flow and permitting communication between the upstream HP and LP, either through said one-way valve (60/61) or beside this latter through a calibrated passage (113).

29. (new) Device according to claim 22, comprising for the control, of the LP supply of the pump (P): an electrovalve (40) whose drawer (43-100) is actuated by a motor (45-101); the LP arriving at the electrovalve through a channel (23-102) opening into a chamber (64-103) in which is located a spring (44-107) acting against the drawer (43-101) and being directed to the pump (P) by a channel (23a-105), the internal leakage of the upstream LP toward the downstream LP producing between the chamber (64-103) and the common rail (C) taking place through a one-way valve (60/61-110) controlled by the movements of the drawer (43-108) with the addition of a calibrated leakage flow and permitting communication between the upstream HP and LP, either through said one-way valve (60/61) or beside this latter through a calibrated passage (113).

30. (new) Device according to claim 23, comprising for the control, of the LP supply of the pump (P): an electrovalve (40) whose drawer (43-100) is actuated by a motor (45-101); the LP arriving at the electrovalve through a channel (23-102) opening into a chamber (64-103) in which is located a spring (44-107) acting against the drawer (43-101) and being directed to the pump (P) by a channel (23a-105), the internal leakage of the upstream LP toward the downstream LP producing between the chamber (64-103) and the common rail (C) taking place through a one-way valve (60/61-110) controlled by the movements of the drawer (43-108) with the addition of a calibrated leakage flow and permitting communication between the upstream HP and LP, either through said one-way valve (60/61) or beside this latter through a calibrated passage (113).

31. (new) Device according to claim 24, comprising for the control, of the LP supply of the pump (P): an electrovalve (40) whose drawer (43-100) is actuated by a motor (45-101); the LP arriving at the electrovalve through a channel (23-102) opening into a chamber (64-103) in which is located a spring (44-107) acting against the drawer (43-101) and being directed to the pump (P) by a channel (23a-105), the internal leakage of the upstream LP toward the downstream LP producing between the chamber (64-103) and the common rail (C) taking place through a one-way valve (60/61-110) controlled by the movements of the drawer (43-108) with the addition of a calibrated leakage flow and permitting communication between the upstream HP and LP, either through said one-way valve (60/61) or beside this latter through a calibrated passage (113).

32. (new) Device according to claim 25, comprising for the control, of the LP supply of the pump (P): an electrovalve (40) whose drawer (43-100) is actuated by a motor (45-101); the LP arriving at the electrovalve through a channel (23-102) opening

into a chamber (64-103) in which is located a spring (44-107) acting against the drawer (43-101) and being directed to the pump (P) by a channel (23a-105), the internal leakage of the upstream LP toward the downstream LP producing between the chamber (64-103) and the common rail (C) taking place through a one-way valve (60/61-110) controlled by the movements of the drawer (43-108) with the addition of a calibrated leakage flow and permitting communication between the upstream HP and LP, either through said one-way valve (60/61) or beside this latter through a calibrated passage (113).

33. (new) Device according to claim 26, comprising for the control, of the LP supply of the pump (P): an electrovalve (40) whose drawer (43-100) is actuated by a motor (45-101); the LP arriving at the electrovalve through a channel (23-102) opening into a chamber (64-103) in which is located a spring (44-107) acting against the drawer (43-101) and being directed to the pump (P) by a channel (23a-105), the internal leakage of the upstream LP toward the downstream LP producing between the chamber (64-103) and the common rail (C) taking place through a one-way valve (60/61-110) controlled by the movements of the drawer (43-108) with the addition of a calibrated leakage flow and permitting communication between the upstream HP and LP, either through said one-way valve (60/61) or beside this latter through a calibrated passage (113).